

SHNAYDMAN, L.O.

[Production of synthetic ascorbic acid (vitamin C)] Proizvodstvo  
sinteticheskoy askorbinovoi kisloty; vitamina C. Moskva, Pishche-  
promizdat, 1948. 227 p.  
(ASCORBIC ACID)

SHNAIDMAN, L.O.

USSR.

The chemistry of ascorbic acid decomposition. L.O.  
Shnaidman, Trudy Vsesoyuz. Nauch.-Issledovatel. Vito-  
min. Inst. 4, 47-63(1953). Contrary to current concepts,  
at pH 0.5-7.0 ascorbic acid (I) decomps. to furfural. The  
amt. of decomps. increases as the pH becomes lower. In  
conc. neutral and alk. solns. (pH 7.0 to 10.0) in sealed  
ampuls, no decompn. of I occurs in 2 hrs. at 98-9°. The  
mechanism is discussed. B.S. Levine.

SHNAYDMAN, L.O.

USSR

✓ Lowering the loss and raising the quality of ascorbic acid in the process of crystallization. L. O. Shnaydmann; *Trudy Vsesoyuz. Nauch.-Issledovatel. Vitamin. Inst.*, 4, 54-62 (1953).—Temps. above 50° should be avoided in the recrystn. of ascorbic acid. Increasing the concn. above 20% leads to a loss of ascorbic acid, because of a lowering in the pH. An increase in the amt. of active charcoal up to 5% (on the basis of the wt. of the acid) results in 0.6-8.9% loss. At 1-2% of charcoal the loss is down to 2-3%. It is recommended that 1.5% of the charcoal and 2-min. contact be adhered to for the best results. Secondary products of crystn. have an adverse effect on the yield of ascorbic acid and should be removed as rapidly as possible. Ascorbic acid of high purity is characterized by high stability. A method is described for the detn. of color and optical density of ascorbic acid and the products of its recrystn. Coeffs. of satn. and supersatn. for crystn. of mother liquors are established, which enable the theoretical calcn. of ascorbic acid of mother liquors.

B. S. Levine

SHNAYDMAN, L.O.

✓ Improvement of processes of lactonization and enolization of diacetone-2-oxo-L-gulonic acid /L. O. Shnayzman.  
Trudy Vsesoyus. Nauch. Issledovatel. Vsesoyuz. Inst. 5,  
32-41(1954).—Enolization of diacetone-2-oxo-L-gulonic acid  
occurs best of all in a small vol. of CHCl<sub>3</sub>; for esterification  
0.22 l. EtOH/kg. gulonic acid hydrate is used; the best  
amt. of CHCl<sub>3</sub> is 1-1.1 l./kg. monohydrate, with addn. of  
0.05 kg./kg. HCl in the 1st step, and 0.025 kg./kg. in 2nd  
step. G. M. Kosolapoff

Clear

Pm mt

SHNAIDMAN, L. O.

*Chem* ✓ Stability of aqueous solutions of L-sorbose to heating.  
L. O. Shnайдман, Труды Всероссийской научно-исследовательской лаборатории витамина. Тест. 5-16-60 (1954). — Heating of alk. aq. solns.

of sorbose results in formation of acids and intermediate decompr. products, the former lowering the pH level. At pH 7 there begins a dehydration process of sorbose yielding hydroxymethylfurfural which cleaves into  $\text{HCO}_2\text{H}$  and levulinic acid; at pH 3 reversion of hydroxymethylfurfural sets in. Heating acidic solns. of sorbose results in formation of hydroxymethylfurfural, followed by formation of  $\text{HCO}_2\text{H}$  and levulinic acid, while at pH under 3 the process of reversion of hydroxymethylfurfural also sets in. The changes are followed by ultraviolet spectra. G. M. Kosolapoff

SHNAYDMAN, L. O.

✓ Effect of various factors on stability of carotene in solutions. L. O. Shnayzman, B. M. Dul'china, and A. M. Pavlova. *Trudy Vsesoyus. Nauch. Issledovatel. Vitamin. Inst.* 5, 51-64 (1954).—The deciding factor in decompr. of carotene is atm. O<sub>2</sub>; acids, light, and heat cause some acceleration of decompr., light being least; acid the most important. Alkalies have no effect. G. M. Kosolapoff

3

SHNAYDMAN, L.O., spetsred.; RYZHOVA, M.S., red.; YAROV, E.M., tekhn.red.

[Vitamin industry; a concise manual] Vitaminnnaia promyshlennost';  
sbornik. No.3 [Automatization of the production of synthetic  
ascorbic acid] Avtomatizatsiia protsessov proizvodstva sinte-  
ticheskoi askorbinovoii kisloty. Moskva, Pishchepromizdat. 1956.  
26 p. (MIRA 12:3)

1. Russia (1923- U.S.S.R.) Ministerstvo promyshlennosti prodo-  
vol'stvennykh tovarov. Otdel tekhnicheskoy informatsii.  
(Ascorbic acid)

SHNAYDMAN, L.O., kandidat tekhnicheskikh nauk, spetsredaktor; PRITYKINA,  
E.A., redaktor; CHEBYSHHEVA, Ye.A., tekhnicheskiy redaktor

[Vitamins] Vitaminy. Moskva, Pishchepromizdat. Pt.1. 1956. 141 p.  
(MLRA 10:2)

l. Russia (1923- U.S.S.R.) Ministerstvo promyshlennosti  
prodovol'stvennykh tovarov.  
(VITAMINS)

SHNAYDMAN, L. O.

~~Shev'yrev, U.S.S.R. 104,878, Mar. 25, 1957. The sepa-~~  
~~from the Me<sub>2</sub>CO soln is accomplished with an alkali. The~~  
~~M<sub>g</sub>Cl<sub>2</sub> is added in slight excess up to 10%, and then in~~  
~~the form of a salt, a desiccant equivalent to 2.1 for each kg~~  
~~of Me<sub>2</sub>CO is added.~~

M. Hosek

8/23  
MT

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549810017-5

SHNAYD MAN, L.D.

~~Urea + glucose + sorbose to diacetone-alcohol~~

M Hesch

PM  
MT

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001549810017-5"

SHNAYDMAN, Lev Osipovich; SAVINOV, B.G., doktor tekhn.nauk, retsenzent;  
LEBEDEV, A.D., inzh., retsenzent; BELIKOVA, L.S., red.; SOKOLOVA,  
L.A., tekhn.red.

[Production of vitamins] Proizvodstvo vitaminov. Moskva,  
Fishchepromizdat, 1958. 413 p.  
(MIRA 12:2)  
(Vitamins)

SHNAYDRIAN, L.O., kand.tekhn.nauk

Use of ascorbic acid and prospects for the expansion of its  
production. Vitaminy no.5:5-22 '59. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
(ASCORBIC ACID)

SHNAYDMAN, L.O.; DUL'CHINA, B.M.; MAVRICHEVA, O.A.; SHEVYREVVA, O.N.

Methods for the isolation of diacetone sorbose from the reaction  
mass in the production of ascorbic acid. Trudy VNIVI 6:48-52  
'59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(SORBOSE)

SHNAYDMAN, L.O.; DUL'CHINA, B.M.; MAVRICHEVA, O.A.; SHEVYREVA, O.N.

Oxydation of diacetone sorbose by permanganate. Trudy VNIVI  
6:52-54 '59.  
(MIRA 13:?)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(SORBOSE)

SHNAYDMAN, L.O.; SHEVYREVA, O.N.

Improvement of processes for the isolation of crystalline sorbose.  
Trudy VNIVI 6:60-62 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(SORBOSE)

SHNAYDMAN, L.O.; DUL'CHINA, B.M.; MAVRICHEVA, O.A.; SHEVYREVA, O.N.

Reducing loss in the recrystallization of ascorbic acid. Trudy  
VNIVI 6:62-64 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(ASCORBIC ACID)

SHNAYDMAN, L.O.; DUL'CHINA, B.M.

Precise definition of some problems of the new technology for  
the production of carotene from carrots and squash. Trudy VNIVI  
6:110-115 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(CAROTENE)

SHNAYDMAN, L.O.; PAVLOVA, A.M.

Stability of a vitamin A concentrate from fish oil. Trudy VNIVI  
6:116-118 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(VITAMINS--A)

SHNAYDMAN, L.O.; SHAKHOVA, M.F.

Production of vitamin meal from lucerne. Trudy VNIIVI 6:148-  
151 '59. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy vitaminnyy institut.  
Tekhnologicheskaya laboratoriya.  
(CAROTENE)

SHNAYDMAN, L.O.; SILING, M.I.; Prinimala uchastiye: PROKHORENKO, L.V.

Studies in the production of pyridinecarboxylic acids. Report No.  
2: Synthesis of isocinchomeronic acid by oxidation of 2-methyl-5-  
ethylpyridine nitric acid under atmospheric pressure. Trudy  
VNIVI 8:5-11 '61. (MIRA 14:9)

1. Khimiko-tehnologicheskaya laboratoriya Vsesoyuznogo nauchno-  
issledovatel'skogo vitaminnogo instituta.  
(Isocinchomeronic acid)

SHNAYDMAN, L.O.; KUSHCHINSKAYA, I.N.; Prinimali uchastiye: SILING, M.I.;  
BALINTSENKO, S.V.; SHEVYREVA, O.N.; RYUMINA, N.V.; VASIL'YEVA, G.A.

Catalytic oxidation of diacetone-L-sorbose in diacetone-2-keto-L-gulonic acid with atmospheric oxygen. Trudy VNIVI 8:13-22  
'61. (Sorbose) (Gulonic acid) (MIRA 14:9)

SHNAYDMAN, L.O.; KUSHCHINSKAYA, I.N.

Complex reprocessing of the fruits of the dog rose for vitamin preparations. Trudy VNIVI 8:66-71 '61. (MIRA 14:9)

1. Khimiko-tehnologicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta.  
(Dog rose) (Vitamins)

DENSHCHIKOV, Mikhail Tikhonovich, kand.tekhnn.nauk; SILIN, P.M., prof.,  
red.; VESELOV, I.Ya., prof., red.; SMIRNOV, V.A., prof., red.;  
~~APPROVED FOR RELEASE: 08/23/2000 Red.~~ CIA-RDP86-00513R001549810017  
KUPCHINSKIY, P.D., red.; BENIN, G.S., red.; P'YANKOV, A.G., red.;  
SHNAYDMAN, L.O., red.; MOREV, N.Ye., red.; SHMAIN, M.M., red.;  
BULGAKOV, N.I., red.; MAYOROV, V.S., red.; TERNOVSKIY, N.S., red.;  
RAZUVAYEV, N.I., red.; OGORODNIKOV, S.T., red.; BURMAN, M.Ye., red.;  
KHOLOSTOV, V.A., red.; NAMESTNIKOV, A.F., red.; NASAKIN, T.N., red.;  
KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn. red.

[Wastes from the food industry and their utilization] Otkhody pishchevoi promyshlennosti i ikh ispol'zovanie. Izd. 2., dop. i perer. Moskva, Pishchepromizdat, 1963. 615 p. (MIRA 16:6)  
(Food industry--By-products)

SHNAYDMAN, M.A.

Investigating the precision of the computing members of simulating devices. Avtom. i telem. 14 no.2:164-176 Mr-Ap '53. (MIRA 10:3)  
(Automatic control) (Electronic calculating machines)

TOPILIN, Ivan Vasil'yevich; SHNAYDMAN, M.I., redaktor; GRABARNIK, A.Z.,  
redaktor; OYSTEAKH, V.G., tekhnicheskiy redaktor

[The cyclical work schedule is the basis of high coal output]  
Grafik tsiklichnosti - osnova vysokoi dobychi uglia. Alma-Ata,  
Kazakhskoe gos. izd-vo, 1956. 16 p. (MIRA 9:10)

1. Nachal'nik uchastka No.5 shakhty No.3 imeni Kirova kombinata  
"Karagandaugol'" (for Topilin)  
(Coal mines and mining)

~~SHNAYDMAN~~, Maks Iosifovich; VAL'SHTEYN, G., redaktor; ~~BYAKHOVETSKAYA, T.~~,  
redaktor; OYSTRAKH, V., tekhnicheskikh redaktor

[A new, efficient method of mine timbering] Novyi effektivnyi sposob  
upravleniya krovlei. Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 22 p.  
(MIRA 9:10)

l. Nachal'nik tekhnicheskogo upravleniya kombinata "Karagandaugol'"  
(for Shnayzman)  
(Mine timbering)

INOZEMTSEV, Pavel Petrovich; POLOZHII, Fedor Mikhaylovich; SHNAYDMAN,  
Maks Iosifovich; CHERKASSKIY, Feliks Borisovich, LYUBOSHCHINSKIY,  
Dmitriy Markovich; POZIN, Yevgeniy Zalomanovich; LEVIN, N.F.,  
otvetstvennyy redaktor; KOLOMIYTSEV, A.D., redaktor izdatel'stva;  
KOROVENKOVA, Z.A., tekhnicheskiy redaktor

[Mechanization of coal loading in mines of the Karaganda Basin]  
Mekhanizatsiya navalki uglia na shakhtakh Karagandinskogo ugol'-  
nogo basseina. Moskva, Ugletekhizdat, 1956. 171 p. (MLRA 9:9)  
(Karaganda Basin--Coal mining machinery)

SHNEYDMAN, M.I.

Problems in the further technical development of "Karagandaugol'"  
mines in the sixth five-year plan. Vest.AN Kazakh.SSR 12 no.8:  
3-14 Ag '56. (MLRA 9:12)

1. Nachal'nik tekhnicheskogo upravleniya kombinata "Karagandaugol'."  
(Karaganda Basin--Coal mines and mining)

SHNAYDMAN, M.A.

4  
8  
8

AUTOMATICS AND TELEMECHANICS

Vol 17, Nr 10, 1956

PULSE-WIDTH MODULATION ELEMENT IS USED TO  
INVESTIGATE CONTROL SYSTEMS

M. A. SHNAIDMAN

(Moscow)

D  
Shn  
A pulse-width modulation element based on the using operational amplifiers is considered in the paper. The said element together with an electronic computer can be employed to investigate control systems of pulse-width modulation type.

W LFH

SHNAYDMAN, M.I.

SMYSHLAYEVA, Lyudmila Matveyevna; SHNAYDMAN, M.I., otvetstvennyy red.;  
GOLUBYATNIKOVA, G.S., red.izd-va; MADEINSKAYA, A.A., tekhn.red.

[Possibilities for increasing labor productivity in the coal  
industry] Rezervy povysheniia proizvoditel'nosti truda v ugol'noi  
promyshlennosti. Moskva, Ugletekhizdat, 1957. 124 p. (MIRA 11:6)  
(Coal mines and mining) (Labor productivity)

SHNAYDAN, M.A.

103-7-8/11

AUTHOR: SHNAJDAN, M.A. (Moscow)  
TITLE: The Electronic Wire Potentiometer. (Elektronnaya model' provoloch-  
nogo poten'simetra, Russian)  
PERIODICAL: Avtomatika i Telemekhanika, 1957, Vol 18, Nr 7, pp 669-677  
(U.S.S.R.)

ABSTRACT: A model of a wire potentiometer is shown which serves as element for the transmitter of an automatic regulator. The scheme presented shows the non-linear static characteristic of the wire potentiometer, taking into consideration the play in the slide as well as in the winding pitch. Here the non-linear element in the case of thyratrons and that on the basis of a relay with a more exact non-linear characteristic controlling the dion key is given. The analysis of the scheme, the calculation of its parameters, and the classification of the distortions of the step-characteristic output voltage as well as the results of the experiments are given.

The greatest distortions develop on the occasion of the adaption of the scheme to the minimum number of steps. The voltage must be kept constant until the formation of a new step, if the integrator is switched off. In this case the distortions are dependent on two basic factors: The presence of the loss-

Card 1/2

SHNAYDMAN, Maks Iosifovich; ZAYTSEV, S.I., otv.red.; SUROVA, V.A., red.izd-va;  
IGNAT'YEVA, L.I., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red.;  
LOMILINA, L.N., tekhn.red.

[Efficiency of using new equipment in coal mines] Effektivnost' pri-  
meneniiia novoi tekhniki na ugol'nykh shakhtakh. Ugletekhizdat, 1958.  
91 p. (MIRA 12:3)

(Karaganda Basin--Coal mines and mining)

SHNAYDMAN, M.I.

Outlook for the development of coal mining in the Karaganda  
Economic Region. Vest. AN Kazakh. SSR 14 no.2:37-47 F '58.  
(MIRA 11:2)

1.Nachal'nik tekhnicheskogo upravleniya kombinata "Karagandaugol'."  
(Karaganda Economic Region--Coal mines and mining)

SHNAYDMAN, M.I.

Economic efficiency of introducing the use of cutter-loaders in  
Karaganda Basin coal mines. Ugol' 33 no.10:30-32 O '58.  
(MIRA 11:11)

1. Kombinat Karagandaugol'.  
(Karaganda Basin--Coal mines and mining) (Coal mining(machinery))

## PHASE I ROOM INFORMATION

S01/L411

Konferencija po voprosam teorii i prikladnykh diskretnykh avtomaticheskikh sistem,  
Moscow, 1958

Theorie i prikladnye diskretnykh avtomaticheskikh sistem: trudy konferencii  
(Teoriya i prikladnye diskretnykh avtomaticheskikh sistem: Trudy konferencii  
(Teoriya i prikladnye diskretnykh avtomaticheskikh sistem: Trudy konferencii  
Coference) Moscow, AN SSSR, 1958. 572 p. 5,000 copies printed.

Sponsoring Agency: Akademicheskii nauchno-tekhnicheskii i tekhnicheskii  
zakazchik upravlyaniyu. Institut avtomatiki i tekhnicheskikh

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Sciences; Ed. of Publishing House, M.L. Podgorny, Doctor of Technical Sci., Ed. J.G. Murkovich.

Purpose: These transactions are intended for the members of the conference and  
other specialists in automatic control.

CONFERENCE. The Conference on the Problems of Theory and Application of Discrete  
Automatic Systems took place in Moscow from September 22 to 26, 1958. It was  
the first conference devoted to discussion of the present status of the theory  
and technique of discrete automatic systems and to planning for future develop-  
ment. The papers presented at the conference have been divided into four groups:  
1. In the first group optimization, matching circuits are discussed as well as methods  
of relay control systems. In particular, plan 10, control system in which are  
realized optimal procedures, is to quick response. The second group of papers is  
devoted to the analysis and synthesis of pulse systems with variable parameters.  
2. Pulse systems with several pulse components. To the study of calculating linear  
processes in nonlinear pulse systems, paid to the authors of calculating linear  
pulse systems. Problems of calculating pulse systems paid to the authors of calculating  
pulse systems. Problems have also been studied. The third group of papers deals with  
digital systems. Problems of using elements of digital technology and their  
complexity for their realization of various kinds of equipment, problems of  
processing multistage radio communication, modeling, etc. But also the problems  
of analytical design of communication systems as well as problems of technical  
specialized financial converters have been included in this group. The fourth  
group of papers includes theoretical, abstract and certain practical applications  
of the simplest types of self-adjusting systems: optimization, control systems  
which are described as relay, pulse and digital devices. Here are also found  
problems of determining working processes of automatic systems, their synthesis in  
optimizing processes, analysis of existing control systems, paying attention to the  
problems of automatic synthesis and analysis of existing optimization methods.  
Many other directions of the various conference papers have also been included in  
this group. Translations, bibliographies and references accompany most of the papers.

## PAPERS IN THIS SECTION

## Optimally Working Processes

The author discusses a class of the problems which is characteristic for  
industrial processes subjected to effects of originally active time signals.  
The example discussed concerns the problem of a relay step on a continuous  
one whose initial value is zero. The author describes the  
processes with switches and describes block diagrams for the self-adjusting  
systems. There are 8 references: 5 Soviet and 3 English.

## Simulation of Pulse Systems of Automatic Regulation

The author discusses a class of the problems which is characteristic for  
various types of pulse systems. He represents any pulse system as a combination of  
an assembly of devices of continuous action with pulse action component.  
This he illustrates with linear and nonlinear dissipative installations of the  
form  $\dot{x}_1 = f_1(x_1, t)$  and other types. The author describes the elements units  
of the pulse action component and presents their block diagrams and elec-  
trical circuit. There are 5 references: 4 Soviet and 1 English.

L 40023 65 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1) Po-4/Pq-4/Pf-4/Pg-4/Pk-4/P1-4  
IJP(c) GS/BC

ACCESSION NR: AT5003915

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39

B+1

AUTHOR: Mamontov, A. Ye. (deceased); Shnayzman, M. A.

TITLE: Simulation of a certain class of self-adaptive automatic-control systems  
subject to noise

SOURCE: Vsesoyuznaya konferentsiya - seminar po teorii i metodam matematicheskogo  
modelirovaniya. 3d, 1962. Vychislitel'naya tekhnika v upravlenii (Computer tech-  
nology in control engineering); sbornik trudov konferentsii. Moscow, Izd-vo Nauka,  
1964, 188-201

TOPIC TAGS: self adaptive system, simulation, correlator, automatic control system,  
noise immunity

ABSTRACT: The article deals with self-adaptive systems in which the quality of  
the output of the main system is controlled by means of a model operating in  
parallel with the main system. In the case of a system subject to random noise,  
a correlator is necessary, and the authors describe an electronic multichannel  
correlator developed for the purpose, which can be used either for simulation or

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as a real element in an automatic control system. The operating principle and the main elements of the correlator are described in detail. Theoretical and experimental tests of the correlator have shown that it has the following characteristics: Number of points of the correlation function -- 21; maximum delay time -- 200 sec; maximum to minimum frequency ratio -- 5; maximum input signal frequency range -- 0--100 cps; error in calculation of the correlation function for a sinusoid -- 5--7%; approximate dimensions (without power supply) -- 700 x 500 x x 400 mm; range of input and output signals --  $\pm$  100 V. Orig. art. has: 9 figures and 33 formulas.

ASSOCIATION: None

SUBMITTED: 17Aug64

ENCL: 00

SUB CODE: DP

NR REF SOV: 003

OTHER: 002

Card 2/2

L 51500-65 EWP(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v) P<sub>f</sub>-4/P<sub>g</sub>-4/P<sub>k</sub>-4/P<sub>l</sub>-4/P<sub>o</sub>-4/P<sub>q</sub>-4

IJP(c) BC

ACCESSION NR: AP5013836

UR/0103/65/026/005/0792/0801

62-506.1:519.272

98

B

AUTHOR: Nachinkina, G. N. (Moscow); Shnayzman, M. A. (Moscow)

TITLE: Application of a relay correlator for determining the frequency characteristics in self-adjusting systems without automatic scanning performing in the presence of stationary noises

SOURCE: Avtomatika i telemekhanika, v. 26, no. 5, 1965, 792-801

TOPIC TAGS: automatic control, self adjusting system, relay correlator

ABSTRACT: The authors analyze a correlation method for determining real and imaginary frequency characteristics of linear systems in the presence of stationary noise which are used for the synthesis of self-adjusting systems without scanning. A procedure is presented for calculating the relay cross-correlation function between the tentative sinusoidal signal and the output coordinate of the system for delay values  $\tau = 0$  and  $\tau = \pi/2\omega_0$  ( $\omega_0$  is the frequency of the tentative signal), which are used as performance criteria and represent the relation between the variable system parameter and the adjustment parameters. A simplified scheme of a device for calculating cross-correlation functions (the relay correlator) is described.

Card 1/2

L 51500-65

ACCESSION NR: AP5013836

accuracy of its performance is analyzed for certain characteristics of noise. It is shown that for a given accuracy in calculating the cross-correlation function, the frequency and the amplitude of the tentative signal as well as the length of the calculation interval can be determined. Orig. art. has: 18 formulas and 7 figures.

[LK]

ASSOCIATION: none

SUBMITTED: 27Mar64

ENCL: 00

SUB CODE: 1E

NO REF SOV: 003

OTHER: 002

ATD PRESS: 4017

Card 2/2 my

L 07203-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l) GD  
ACC NR: AT6022702

SOURCE CODE: UR/0000/66/000/000/0364/0376

49  
B+1

AUTHOR: Shnaydman, M. A.

ORG: none

TITLE: High-speed self-adjusting automatic control system with highly noise-resistant self-adjusting circuits

SOURCE: Moscow. Institut avtomatiki i telemekhaniki. Samoobuchayushchiyesya avtomaticheskiye sistemy (Self-instructing automatic systems). Moscow, Izd-vo Nauka, 1966, 364-376

TOPIC TAGS: self adaptive control, automatic control circuit, random noise signal

ABSTRACT: This work presents a method of self-adjustment based on the correlation method of determining frequency characteristics and develops a principle for designing self-adjusting systems operating under high-level noise conditions. An analysis is made of accuracy of the correlation method of determining frequency characteristics, and methods are given for selecting frequency and amplitude of the test signal and length of period for computing mutual correlation function. In accord with this principle are adduced the basic considerations for embodying the self-adjustment circuits in hardware. The topics covered are principles of high-speed self-adjusting system design, method of self-adjustment using the correlation method of determining frequency characteristics, formation of self-adjustment signals, and certain matters involving equipment to effectuate self-adjusting circuits. Final control elements in

Card 1/2

SHNAYDMAN, M. I., kand.ekonomicheskikh nauk

Economic effectiveness of using the K-52M narrow range cutter-  
loader. Ugol' 35 no.11:56-57 N '60. (MIRA 13:12)  
(Coal mining machinery)

SHVYDMAN, M.I., kand. ekonom nauk

Efficiency of using a metal support in longwalls of  
Karaganda Basin mines. Ugol' 38 no.12:47-49 '63.  
(MIRA 17:5)

1. Gosudarstvennyy preyektno-konstruktorskiy i  
eksperimental'nyy institut ugol'nogo mashinostroyeniya.

ALEKHIN, F.K.; ALOTIN, L.M.; ALTAYEV, Sh.A.; ANTONOV, P.Ye.;  
BEVZIK, Yu.Ya.; BELEN'KIY, D.M.; BRATCHENKO, B.F.,  
gornyy inzh.; BRENNER, V.A.; BYR K., V.F.; VAL'SHTEYN,  
G.I.; YERMOLENOK, N.S.; ZHISLIN, I.M.; IVANOV, V.A.;  
IVANCHENKO, G.Ye.; KVON, S.S.; KODYK, G.T.; KREMENCHUTSKIY,  
N.F.; KURDYAYEV, B.S.; KUSHCHANOV, G.K.; MASTER, A.Z.;  
PREOBRAZHENSKAYA, Ye.I.; ROZENTAL', Yu.M.; RUDOV, I.L.;  
RUSHCHIN, A.A.; RYBAKOV, I.P.; SAGINOV, A.S.; SAMSONOV,  
M.T.; SERGAZIN, F.S.; SKLEPCHUK, V.M.; USTINOV, A.M.;  
UTTS, V.N.; FEDOTOV, I.P.; KHRAPKOV, G.Ye.; SHILENKOV, V.N.;  
SHNAYDMAN, M.I.; BOYKO, A.A., retsenzent; SUROVA, V.A.,  
ved. red.

[Mining of coal deposits in Kazakhstan] Razraborka ugol'-  
nykh mestorozhdenii Kazakhstana. Moskva, Nedra, 1965. 292 p.  
(MIRA 18:5)

SHNHYDMAN, V.A.

KUCHEROV, N.V.

X7) p ✓ PHASE I BOOK EXPLOITATION 80V/1733

. Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy fiziki prizemnogo slysa' vodukha (Problems in the Physics of the  
Near-Surface Air Layer) Leningrad, Gidrometeorizdat, 1958, 162 p.  
(Series: Itc: Trudy, vyp. 77) 1,500 copies printed.Sponsoring Agency: USSR. Glavnaya upravlyaniye gidrometeorologicheskoy  
sluzhbyEd. (title page): D.L. Laykhtman, Doctor of Physical and Mathematical  
Sciences; Ed. (inside book): Yu.V. Vlasov; Tech. Ed.: A.N. SerguyevPURPOSE: This collection of articles is intended for scientists interested in the  
processes that take place in the boundary layer of the atmosphere.COVERAGE: This publication contains 13 articles dealing with the physical processes  
of near-surface air masses. The research work was done in 1956. The basic work  
is related to the formation of hoarfrost and fog and to the effect of the con-  
densation processes on thermal conditions. Some articles deal with the methods  
for measuring and computing the main meteorologic features of the near surface  
air masses, others with the problem of atmospheric turbulence. The  
articles are elucidated with charts, diagrams, and tables.

Shnhydman, V.A. The Relation Between the Non-stable Pressure Fields and the Wind Distribution in a Boundary Layer	65
Tarnopol'skiy, A.O. Common Determination of the Nature of Meteorologic Elements and of the Specific Quantitative Features in a Atmospheric Boundary Layer	72
Tseytin, G.Kh. Certain Methods for Determining the Coefficients of Horizontal Turbulent Diffusion	76
Gorbunova, I.O., T.V. Bychkova, and N.V. Serova. Results of the Measurement of Specific Thermophysical Properties of Soil Under Natural Conditions	79
Gorodin, L.S., and N.S. Solov'yevskiy. The Distribution of Industrial Smoke	84

Card 3/4

86644

S/050/60/000/012/002/005  
B012/B054

3,5000

AUTHORS:

Laykhtman, D. L., Shnayzman, V. A.

TITLE:

Criteria for a Steady Turbulence in Jet Currents

PERIODICAL:

Meteorologiya i gidrologiya, 1960, No. 12, pp. 11 - 13

TEXT: The authors describe the relationship between the parameters of turbulence and the meteorological elements measured in the aerological network. They give a formula for the gradient wind in the region of jet currents; to calculate the turbulence coefficient  $k$ , the wind turbulence  $c'^2$ , and the thickness  $2H$  of the turbulence layer, they use the equations of motion, as well as the equation for the equilibrium of turbulence energy given in Ref.2 (taking account of the dissipation of turbulence energy in heat). Fig.1 shows a diagram for the dimensionless quantities  $k_x$ ,  $u_x$ , and  $x$ .  $x$  is a parameter which can be determined from a transcendental equation given here.  $k_x = \frac{c'^2}{2u_z} = n$  and  $H_x = \alpha H = x \sqrt{2n}$ .

Card 1/2

86644

Criteria for a Steady Turbulence in Jet Currents

S/050/60/000/012/002/005  
B012/B054

All calculations can be made with the aid of this diagram. The authors used the data of Ref.1, and calculated the characteristics of turbulence for the jet current in the area of Leningrad. The results agree with the experimental data.  $n$  and  $x$  are functions of a certain parameter  $M$  which, in its physical meaning, approximately corresponds to Richardson's number.  $n$  can also be determined from a transcendental equation given here. There are 1 figure, 1 table, and 2 Soviet references.

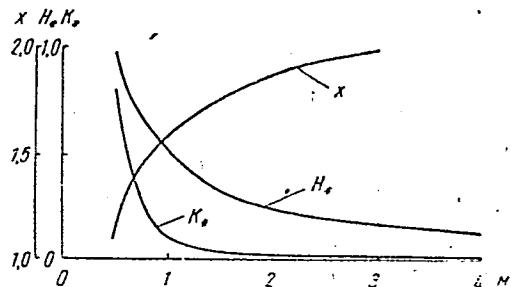


Fig. 1

Card 2/2

Pic. 1.

10 6300

S/169/61/000/012/065/089  
D228/D305

AUTHOR: Shnayzman, V. A.

TITLE: Stationary waves in the tropopause region

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1961,  
47, abstract 12B285 (Tr. Gl. geofiz. observ.,  
1961, no. 107, 148-150)

TEXT: A method of determining the lengths of stationary waves  
is stated for the case when the temperature gradients in masses  
separated by a division surface differ from each other. The re-  
lationship of the thickness of the air layer to the parameters  
of the division surface is given. A formula is introduced for  
the period of overloads acting on an aircraft during its flight  
in an "undulatory" environment. [Abstracter's note: Complete  
translation.]

✓c

Card 1/1

SHNAYDMAN, V.A.

Turbulence in the region of atmospheric interfaces. Trudy GGO  
no.107:150-154 '61. (MIRA 14:10)  
(Atmospheric turbulence)

SHNAYDMAN, V.A.

Determination of the characteristics of the set atmospheric  
turbulence in some layers of the free atmosphere. Trudy  
(MIRA 16:11)  
UkrNIGMI no. 31:54-59 '62.

ACCESSION NR: AR4015475

S/0169/63/000/012/B054/B054

SOURCE: RZh. Geofizika, Abs. 12B300

AUTHOR: Laykhtman, D. L.; Shnayzman, V. A.

TITLE: Turbulence in the region of jet streams

CITED SOURCE: Sb. Materialy\* Nauchn. konferentsii po aviats. meteorol. M., Gidrome-teoizdat, 1963, 43-52

TOPIC TAGS: jet streams, geostrophic wind, turbulent pulsations, turbulence coefficient, turbulent layer, temperature gradient, atmosphere, equations of motion

TRANSLATION: Equations establishing motion and equations of energy balance are derived. The solutions of the equations of motion are constructed for the following cases: 1) the velocity of the geostrophic wind does not depend on altitude, but is different (changes by leaps) in the region of the jet streams (thickness  $2h$ ) and above and below it; 2) the geostrophic wind is an exponential function of the altitude. In both cases the pressure gradient is constant with altitude along the direction of motion. The atmosphere is assumed to be infinite in extent upwards and downwards from the jet stream axis. Formulas are obtained for the coefficient of

Card 1/2

ACCESSION NR: AR4015475

turbulence, the mean square velocity of turbulent pulsations and the thickness of the turbulent layer (at the boundary of this layer, from determinations, the wind for the first time attains the direction of the geostrophic wind). Graphics are constructed for the computation of these values. All of these depend, in addition to the velocity of the geostrophic wind and the vertical temperature gradient determined in practice, on the parameter  $\delta$ , which is proportional to the value of the turbulent energy diffusion in the adjoining layer and its dissipation into heat. L. Matveyev.

DATE ACQ: 09Jan64

SUB CODE: AS, PH

ENCL: 00

Card 2/2

L 8399-65 EWT(1)/FCC AEDG(a) CW  
ACCESSION NR: AT4038392

S/2789/64/000/054/0066/0073

AUTHOR: Shnayzman, V. A.

B

TITLE: Use of the boundary-layer technique to determine turbulence parameters  
in the free atmosphere

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy\*, no. 54, 1964.  
Atmosfernaya turbulentnost' (Atmospheric turbulence), 66-73

TOPIC TAGS: air turbulence, boundary layer turbulence, wind velocity, turbulent  
energy diffusion, jet stream velocity

ABSTRACT: Formulas are developed to determine the turbulence parameters in both  
the upper (stationary, single-layer problem) and lower regions of jet streams and  
to estimate the magnitude of turbulent diffusion energy throughout the boundary  
layer. Theoretical calculations demonstrate that the intensity of turbulent  
diffusion, both above and below the jet stream axis, is determined by the vertical  
gradient of the wind velocity (relative to the wind velocity maximum) in both  
layers. The possibility of estimating the turbulent diffusion energy and of

Card 1/2

L 8399-65  
ACCESSION NR: AT4038392

determining the turbulence characteristics of a layer in the free atmosphere are described. Orig. art. has: 2 figures and 14 formulas.

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)

SUBMITTED: 00

ATD PRESS: 3101

ENCL: 00

SUB CODE: ES

NO REF Sov: 006

OTHER: 001

Card 2/2

L 14181-66 EWT(1)/FCC  
ACC NR: AT6004163

GW

SOURCE CODE: UR/2531/65/000/167/0205/0210

AUTHOR: Laykhtman, D. L.; Shnayzman, V. I.

ORG: Main Geophysical Observatory, Leningrad (Glavnaya geofizicheskaya observatoriya)

TITLE: Wind and turbulent exchange close to frontal surfaces 12,44,55

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 1, 1965.  
Fizika pogranichnogo sloya atmosfery (Physics of the boundary layer of the atmosphere), 205-210

TOPIC TAGS: atmospheric turbulence, wind profile, atmospheric front

ABSTRACT: Wind profile and turbulent exchange close to frontal surfaces are determined from a closed system of equations. The proposed method may be used for finding all dynamic parameters of the state of the atmosphere close to the interface (component of wind velocity, vertical velocity and coefficient of turbulence) as a function of external parameters -- wind shear, temperature discontinuity at the interface and thermal stratification of both air masses. A system of equations for a

Card 1/2

2

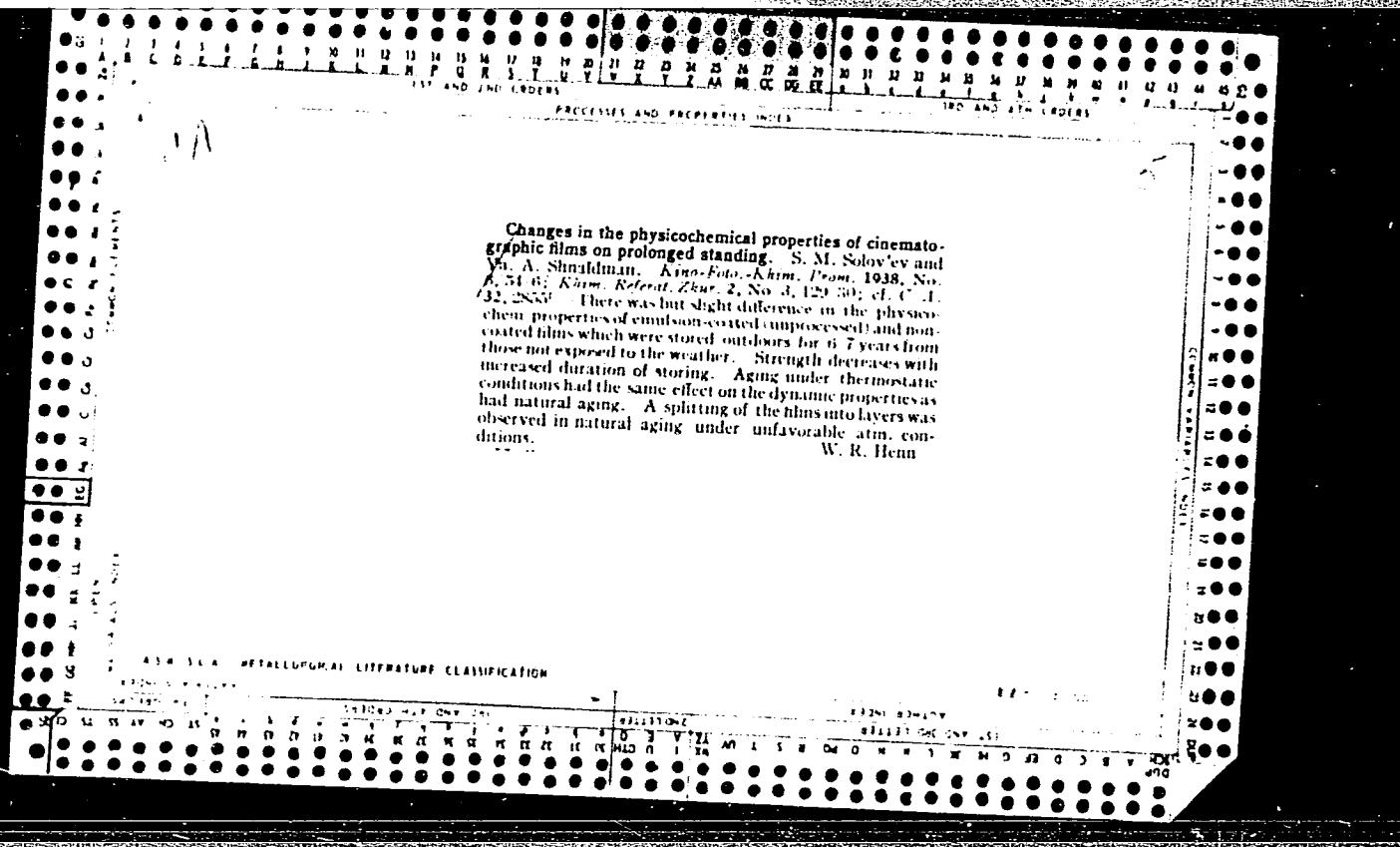
L 14181-66

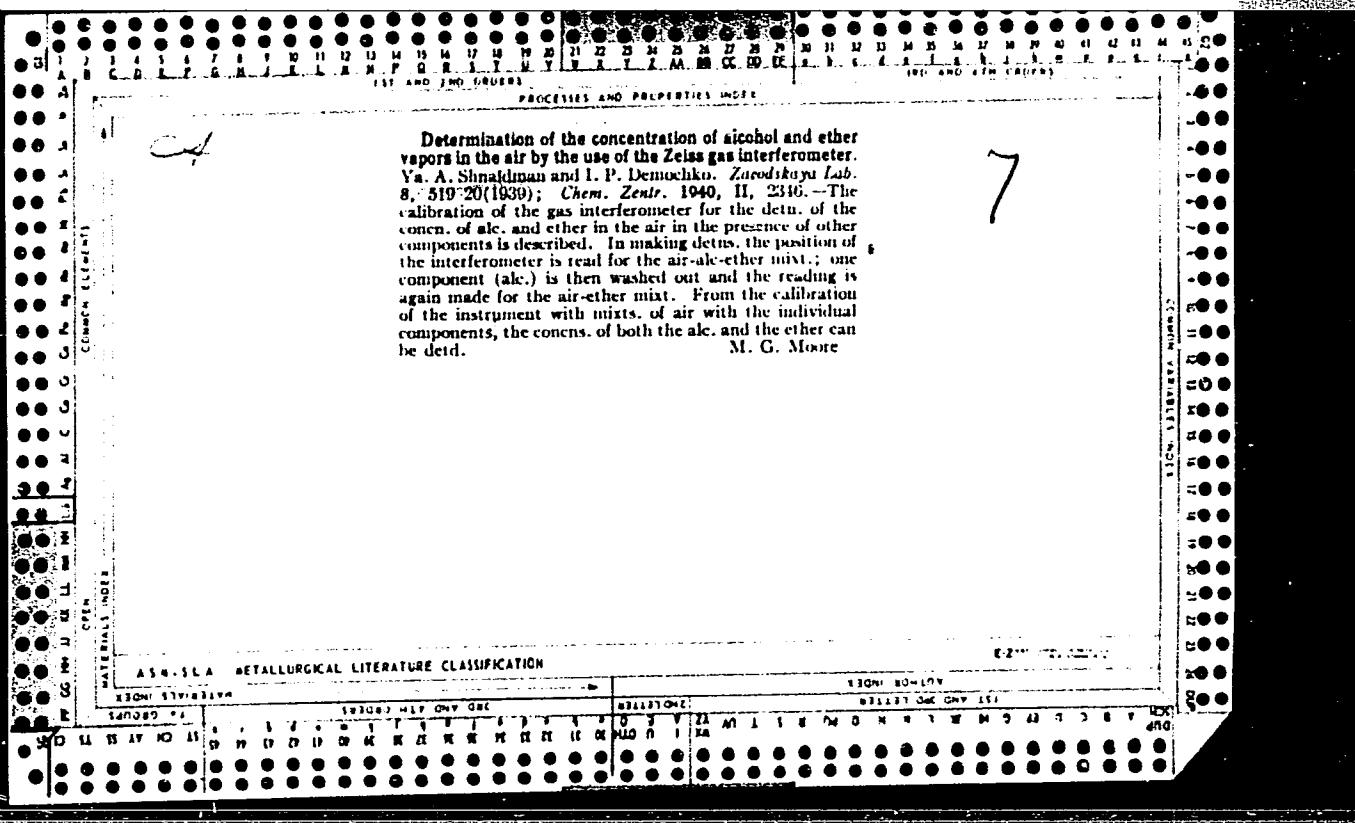
ACC NR: AT6004163

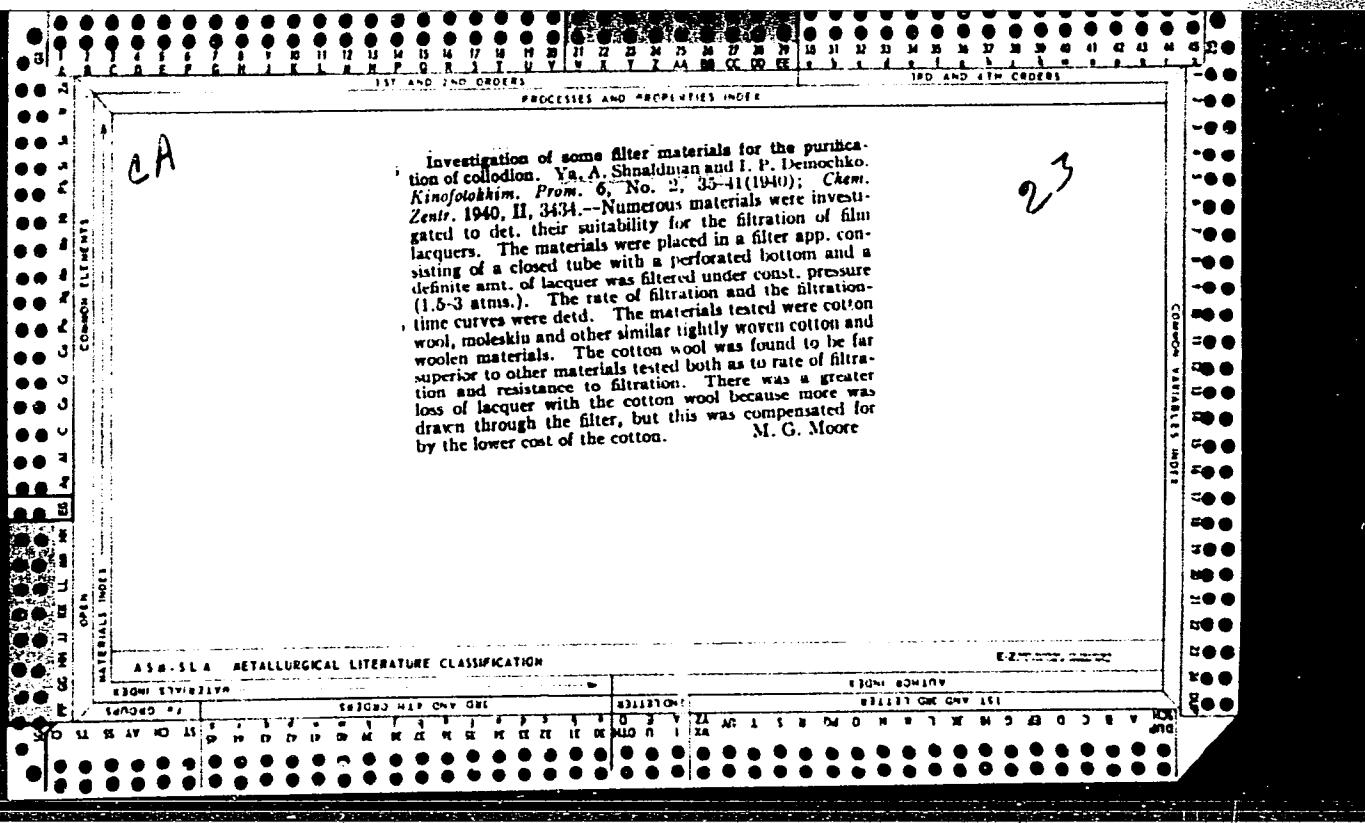
stationary interface in the free atmosphere and the boundary conditions for the problem are given. In the proposed model, it is assumed that turbulence close to the front is caused by high vertical gradients in velocity due to passage through the interface. The intense transformation of kinetic energy of the fundamental motion into turbulent energy which takes place here leads to agitation of some layer on both sides of the interface. The thickness of the agitated layer is taken as that in which 75% of all the turbulent energy is generated. The thickness of this layer is determined by the wind shear and temperature discontinuity and by stratification of the separate air masses. The author considers the case where the coefficients of turbulence in both air masses are the same and are independent of altitude, and also the case where a difference in temperature stratification causes a difference in the coefficients of turbulence in the warm and cold air masses. An expression is derived for the effect of thermal stability in one layer on the parameters of turbulence in the other layer. A formula is given for the gustiness of the wind in the frontal region. A future paper will be dedicated to extending this method to the case of variation in geostrophic wind with altitude and time. Orig. art. has: 3 figures, 10 formulas.

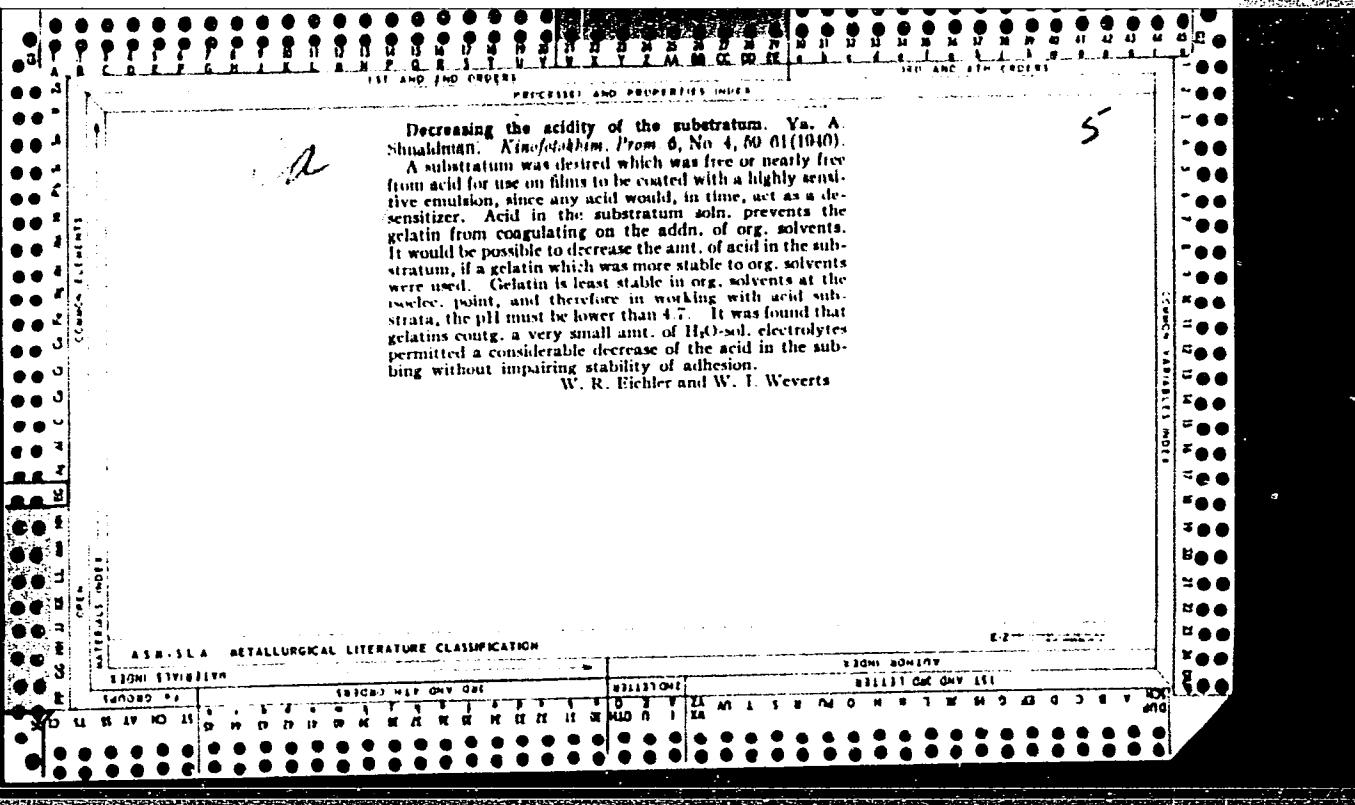
SUB CODE: 08/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 000

Card 2/2









**A rapid method of determining the amount of residual solvents in a motion picture film base.** Ya. A. Shnaizman, *Kinofotokhim. Prom.*, 6, No. 8, 60-1 (1940). A piece of accurately weighed film base is placed in boiling H<sub>2</sub>O for a definite time, the excess H<sub>2</sub>O is blotted off and the film dried in an air thermostat at 80°. Tables are given showing the saving of time by the proposed method over the direct drying in an air bath. Two min., boiling plus 15 min. in the air bath yields, e. g., the same value for loss of wt. as 4 hrs. in the air bath at 60°, and 15 min., boiling plus 30 min. in the air bath yields the same value as 4 hrs. "drying at 80°." W. R. F. and A. B.

## A B C S I A - REFERENCE LITERATURE CLASSIFICATION

4-1-2014 8:56 AM

**APPROVED FOR RELEASE: 08/23/2000**

CIA-RDP86-00513R001549810017-5"

SOV/77-3-6-12'15

AUTHORS:

Shnayzman, Ya.A., Smolko, T.I.

TITLE:

The Stability of the Latent Image in the Light-Sensitive Layer of Certain Domestic Films for Motion Pictures and Photography (Stabil'nost' skrytogo izobrazheniya v svetochuvstvitel'nom sloye nekotorykh otechestvennykh kinofotoplenok)

PERIODICAL:

Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 6, pp 469-471 (USSR)

ABSTRACT:

Deterioration of the latent image in the light-sensitive layer of the following Soviet films was studied: 1) infrachromatic I-760 film; 2) panchromatic film; 3) negative film V; 4) negative film AM; 5) negative film; 6) positive film MZ. The study also included correlations between stability and conservability of the photographic properties of unexposed films under natural storing conditions, optical sensitization, size of the emulsion grains, etc. A film was cut into two halves and each resulting strand again cut into several small strips. The first half was exposed in the FSR-4 sensitometer. The second half was kept unexposed, and strip by strip at determined intervals - exposed in the FSR-4 sensitometer over the course of one year. Each strip was compared with an analogous part of the first half, to determine its photo-

Card 1/2

SHNAYDR, V. [Snajdr, V.]; FISHER, F. [Fiser, F.]; KHODOUNSKA, V. [Chodounska, V.]; KRAKORA, P.; SPOUSTA, Y. [Spousta, J.]

Comparison of the sensitivity of mycobacteria before operation  
and those isolated from resected material. Probl. tub. 42  
no. 8:64-67 '64. (MIRA 18:12)

1. Khirurgicheskoye otdeleniye (zav. V. Shnaydr) Nauchno-  
issledovatel'skogo instituta tuberkuleza (direktor - dotsent  
R. Krzhivinka) i klinika tuberkuleza (zav. - dotsent R. Krzhivinka)  
Instituta usovershenstvovaniya vrachey, Praga.

L 05078-67  
ACC NR: AP6013316

6

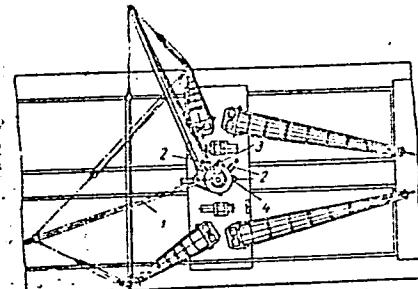


Fig. 1. 1 - crane arm; 2 - brackets;  
3 - intermediate pivot; 4 - pivot

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 15Apr61

Card 2/2 Fv

SHNEE, A.Ya., doktor med.nauk

Operative treatment of relapsing inguinal hernia. Khirurgiia  
36 no.12:114-116 '60. (MIRA 14:1)

1. Iz 2-go khirurgicheskogo otdeleniya (zav. A.Ya. Shnee) Moskov-  
skoy gorodskoy bol'nitsy No. 40 (glavnnyy vrach Ya.S. Shipatovskiy).  
(HERNIA)

SHNFE, Ya. I. Dr. Tech. Sci.

Dissertation: "Problem of the Economical Gas Turbine." Moscow Order of Lenin  
Power Engineering Inst., imeni V. M. Molotov, 24 Jan 47.

SO: Vechernaya Moskva, Jan, 1947 (Project #17836)

SHNEE, Ya.I.

PHASE X

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 732 - X

Call No.: TJ778.S52

BOOK

Author: SHNEE, YA. I., Prof.

Full Title: GAS TURBINE THEORY

Transliterated Title: Teoriya gazovykh turbin

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House of  
Machine-Building Literature

Date: 1950 No. pp.: 386 No. of copies: 3,000

Editorial Staff

Editor: Dinerman, A. P.

Appraisers: Shcheglyayev, A. V., Prof. and Zherbin, S. M., Kand.  
of Tech. Sci.

PURPOSE AND EVALUATION: This book is destine for workers of scientific research institutes, design engineers and calculators and for students of institutions of higher learning. In his study the author is mainly concerned with stationary gas turbines used for power plants and industry. Their application to aircraft is only occasionally mentioned. However, the book might be useful for studying the thermodynamic properties of gases as well as the effect of creepage on materials used for the construction of gas turbines. The book is translated into German: Theorie der Gasturbinen, published by "Verlag Technik", Berlin, 1952. 1/5

Teoriya gazovykh turbin

AID 732 - X

	Pages
1. Cycles with heat supply at constant pressure	
2. Cycles with heat supply at constant volume	
3. Heat supply at constant temperature	
4. Cycles for multi-stage combustion and compression	
Ch. III Thermodynamic Analysis of Gas Turbine Cycles, with the Utilization of Heat from Exhaust Gases	66-140
1. One-stage cycle with heat supply at constant pressure	
2. Cycle with multi-stage supply of heat and compression	
3. Allowing for hydraulic losses in communications and regenerator, and for losses connected with inadequate heating of the regenerator; allowing for hydraulic losses; combined allowance for hydraulic losses and for losses connected with inadequate heating	
4. Cycles performed with a one-stage rotor	
5. Cycles with the use of heat of exhaust gases in steam turbines	
6. Unit heating surface of the heat exchanger	
7. Combined layouts of gas turbine power plants with diesel compressors	
8. Thermodynamic computations allowing for changeable heat capacities	

3/5

Teoriya gazovykh turbin

AID 732 - X

	Pages
Ch. VII Ways of Cooling the Gas Turbine Rotor	255-285
1. Lowering the temperature by means of water injection	
2. Elimination of heat from the blading through the disc	
3. Lowering the temperature of blades by direct cooling	
Ch. VIII Prospects for the use of Gas Turbine Power Plants in Various Fields of the National Economy	286-354
1. Gas turbines for electric power stations	
2. Gas turbines in the chemical industry	
3. Gas turbines in the blast-furnace industry	
4. Gas turbines in the Navy	
5. Gas turbines in the utilization of natural gases	
Ch. IX Brief Review of Contemporary Gas Turbines	355-383
No. of References: Total 40, Russian 27 (1933-1948), others 13 (1924- 1947)	
Facilities: None	

5/5

SHNEE, Ya.I., professor.

Fifteenth anniversary of the death of the distinguished professor  
V.M.Makevskii. Energemashinestresnie no.6:29 Je '56. (MIRA 9:9)  
(Makevskii, Vladimir Matveevich, 1870-1941)

8(6), 14(6)

SOV/112-59-4-6593

Translation from: Referativnyy zhurnal. Elektritekhnika, 1959, Nr 4,  
pp 29-30 (USSR)

AUTHOR: Shnay, Ya. I., and Knabe, G. A.

TITLE: On the Design Characteristics of a Gas-Turbine Locomotive Operating on  
Solid Fuel

PERIODICAL: Tr. Khar'kovsk. politekh. in-ta, 1957, Vol 24, pp 155-167

ABSTRACT: At present, the diesel motor is the most economical transport motor; however, it requires high-grade liquid fuel and considerable expense for lubrication (20% of the fuel cost). Today's capacity of a diesel unit is up to 2,000 hp. However, with certain fuel prices, gas-turbine locomotives can successfully compete with diesel locomotives. Using solid fuel is particularly promising in the case of gas-turbine locomotives. Solid-fuel burning in these locomotives is feasible in these three versions: (1) burning pulverized coal in a combustor before the turbine; (2) burning behind the turbine, and using a

Card 1/2

8(6), 14(5)

SOV/112-59-4-6592

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 4, p 29 (USSR)

AUTHOR: Shmei, Ya. I., and Kotlyar, I. V.

TITLE: On the Selection of an Efficient Layout for a Locomotive Gas-Turbine Plant

PERIODICAL: Tr. Khar'kovsk. politekh. in-ta, 1957, Vol 34, pp 169-180

ABSTRACT: Thermal economy of a gas-turbine locomotive is still considerably behind that of a diesel-electric locomotive; for this reason, selection of the most rational scheme for a gas-turbine plant is the most important objective. An analysis of a gas-turbine plant includes these two problems: (1) investigating individual components; (2) effect of their places in the layout. The influence of a number of stages upon internal turbine efficiency is demonstrated in the article. The influence of the number of stages upon the overall efficiency for single-shaft and two-shaft schemes with optimum pressure is determined. The two-shaft unit with a small number of stages

Card 1/2

SOV/24-58-4-10/39

AUTHORS: Kotlyar, I.V. and Shnee, Ya.I. (Khar'kov)

TITLE: The Choice of a Rational Scheme for a Marine Gas  
Turbine Installation of Large Power, Capable of  
Operating at All Regimes (Vybor ratsional'noy skhemy  
vserezhimnoy korabel'noy gazoturbinnoy ustanovki  
bol'shoy moshchnosti)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh  
Nauk, 1958, Nr 4, pp 73 - 77 (USSR)

ABSTRACT: The characteristic feature of the gas turbine is its  
high specific fuel consumption. Hence for high  
powers, it is convenient to have the installation  
in the form of a single unit guaranteeing both small  
specific fuel consumption and a high efficiency over  
a wide range of loads. The requirement of a reduction  
in specific fuel consumption is also important from  
the point of view of the necessity of reducing the  
weight of the installation in every way possible.  
This is illustrated by the consideration of two  
geometrically similar installations with the same gas  
parameters, local velocities, stresses and efficiency.

Card1/2

SOV/24-58-4-10/39

The Choice of a Rational Scheme for a Marine Gas Turbine  
Installation of Large Power, Capable of Operating at All Regimes

Several rational schemes for gas turbines are considered, each of which has one or two stages and is a direct flow unit where possible. From an analysis of the curves of comparison, a scheme involving secondary heating of the gas is seen to be the best.

There are 7 figures and 3 Soviet references.

SUBMITTED: April 8, 1957

Card 2/2

~~SECRET~~, 18. 1.

PHASE I BOOK EXPLOITATION SOV/5293

Nauchno-tehnicheskaya konferentsiya po razvitiyu proizvoditel'nykh sil Khar'-kovskogo ekonomicheskogo administrativnogo rayona, 1958.

Voprosy mashinostroyeniya; trudy konferentsii... (Problems of Machine Building; Transactions of the Scientific Technological Conference on the Development of Productive Forces of the Khar'kov Economic Administrative Region) no. 3. Kiev, Izd-vo AN UkrSSR, 1960. 182 p. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Sovet po izucheniyu proizvoditel'nykh sil UkrSSR.

Editorial Board: Resp. Ed.: A.A. Vasilenko, Academician of the Academy of Sciences UkrSSR; A.A. Gorshkov, Corresponding Member, Academy of Sciences UkrSSR; I.M. Postnikov, Doctor of Technical Sciences; S.M. Kutsenko; A.I. Adamenko, Candidate of Technical Sciences; G.M. Davydov, Candidate of Economical Sciences; Ed. of Publishing House: S.D. Lepkiy; Tech. Ed.: R.A. Buniy.

PURPOSE: This collection of articles is intended for scientific personnel, engineers, technicians, sovnarkhoz workers, and planning organizations.

Card 1/7

Problems of Machine Building (Cont.)

SOV/5293

Shneye, Ya. I. [Professor at the Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnical Institute)]. Present Trends in the Development of Gas Turbines 17

Proskura, G.F. (deceased) [Academician AS UkrSSR, Laboratoriya gidravlicheskikh mashin AN UkrSSR (Hydraulic-Machinery Laboratory AS UkrSSR)], Hydrodynamic Principles in the Development of Hydraulic Turbines 27

Kuznetsov, B.G. [Deputy Chief Designer at the Khar'kovskiy zavod teplovoznogo elektrooborudovaniya (Khar'kov Plant for Electrical Equipment for Diesel Locomotives)]. Trends in the Development and Improvement of Drive Mechanisms in Diesel-Electric Locomotives 36

Glagolev, N.M. [Doctor of Technical Sciences at Khar'kov Polytechnical Institute]. The Present State of and Outlook for the Development of Engine Building 44

Koval', I.A. [Chief Designer at the GSKBD (Gosudarstvennoye Spetsial'noye Konstruktorskoye Byuro Dvigateley - State Special Engine-Design Bureau) in the "Serp i Molot" Plant]. Work Done by the "Serp i Molot" Plant in Khar'kov and by Its GSKBD in the Design of New Tractor and Combine Engines 61

Card 3/7

Problems of Machine Building (Cont.)

SOV/5293

Zil'berman, B.Z. [Candidate of Technical Sciences at the Khar'kov Branch of "Tyazhpromelektroprojekt"]. The Use of Computers for Planning Production Processes 96

Sorochenko, V.Ye. [Chief Equipment Designer at the Khar'kovskiy elekromekhanicheskiy zavod (Khar'kov Electromechanical Plant)]. Trends in the Development of Electrical-Apparatus Manufacture at the Khar'kov Electromechanical Plant 99

Yanchuk, G.M. [Candidate of Technical Sciences at Zavod "Krasnyy Metallist" (The Krasnyy Metallist Plant)]. Equipment for Automation in Coal Mining 105

Ogan'yan, Ya.P. [Engineer at the Khar'kov Branch of "Tyazhpromelektroprojekt"]. The Use of Mechanical Rectifiers in Electrolytic Processes 115

Lomakin, V.P. [Engineer at the Khar'kov Electromechanical Plant]. The Manufacture of Mechanical Rectifiers 127

Card 5/7

Problems of Machine Building (Cont.)

SOV/5293

Levitskiy, P.A. [Docent at the Khar'kov Polytechnical Institute]. Concentration and Specialization in Founding

164

Kostin, L.G. [Docent at the Khar'kov Polytechnical Institute]. Prospects for the Introduction of Die Rolling Into the Mills of the Khar'kov Economic Region

170

Khodosko, D.L. [Docent at the Khar'kov Polytechnical Institute]. Methods for Reducing the Manufacturing Cost of Forgings

177

Fel'dman, I.I. [Docent at the Khar'kov Polytechnical Institute]. Problems in the Modernization of Press-Forging Equipment

180

AVAILABLE: Library of Congress

Card 7/7

VK/wrc/gmp  
8-3-61

PHASE I BOOK EXPLOITATION

SOV/5234

Shnee, Yakov Isidorovich

Gazovyye turbiny; teoriya i konstruktsiya (Gas Turbines; Theory and Construction)  
Moscow, Mashgiz, 1960. 560 p. Errata slip inserted. 12,000 copies printed.

Reviewers: Kafedra turbostroyeniya Leningradskogo politekhnicheskogo instituta im.  
Kalinina (Manager: S.A. Kantor, Doctor of Technical Sciences), and A.V.  
Shcheglyayev, Doctor of Technical Sciences; Ed.: M.S. Shapiro, Candidate of  
Technical Sciences; Ed. of Publishing House: B.B. Bystritskaya; Tech. Ed.: B.I.  
Model'; Managing Ed. for Literature on General Technical and Transport Machine  
Building: A.P. Kozlov, Engineer.

PURPOSE: This textbook is intended for students at polytechnical and power in-  
stitutions of higher education. It may also be useful to engineering and tech-  
nical workers.

COVERAGE: The book contains basic theoretical information on the calculation and  
planning of gas turbines as well as entire gas turbine power plants. Special

Card 1/8

S/096/60/000/011/016/018  
E194/E184

AUTHOR: Shnee, Ya. I. (Doctor of Technical Sciences)

TITLE: A Scientific Technical Conference on Development of  
the Theory and Practice of Gas Turbine Construction

PERIODICAL: Teploenergetika, 1960, No. 11, pp 91-94<sup>23</sup>

TEXT: A conference, called by the State Scientific Technical Committee of the Council of Ministers of the Ukr. SSR together with the scientific technical society of the Power Industry and the Khar'kov Polytechnical Institute, was held from May 24 to 27 1960 in Khar'kov. The conference was attended by 250 representatives of turbine works, scientific research, teaching and design institutes, and power systems. 21 reports were read. The first few reports concerned the characteristics of gas turbine sets of medium and high output produced and designed by Soviet factories and also the analysis of gas turbine cycles and circuits. Engineer P.I. Korzh described the main characteristics of a 50 MW gas turbine manufactured by the Khar'kov Works. Engineer L.D. Frenkel described the characteristics of gas turbines manufactured by the Leningrad Metal Works.

Card 1/4

S/096/60/000/011/016/018  
E194/E184

A Scientific Technical Conference on Development of the Theory and Practice of Gas Turbine Construction

Cand.Tech.Sci. M.I. Korneyev of the Central Boiler Turbine Institute discussed steam-gas cycles. Dr.Tech.Sci. A.I. Andryushchenko, Corresponding Member Acad.Sci. Ukr.SSR L.A. Shubenko-Shubin and Engineers Y.N. Lapshov and M.P. Kaplan also considered steam-gas cycles.

Cand.Tech.Sci. V.A. Zasin and Engineer B.V. Turchaninov of the Leningrad Polytechnical Institute considered a steam-gas installation of the contact type. Dr.Tech.Sci. D.P. Gokhshteyn of the Odessa Technological Institute considered the use of carbon dioxide as working medium in a gas turbine. ✓

Cand.Tech.Sci. V.G. Tyryshkin and A.M. Zavodovskiy described an approximate aerodynamic method of designing the flow part of a gas turbine developed in the Central Boiler Turbine Institute. Engineer Kh.L. Babenko of the Central Boiler Turbine Institute gave the results of tests on a gas turbine stage. Dr.Tech.Sci. A.A. Lomakin discussed the development of compressors.

Card 3/4

32016  
S/587/60/029/002/003/008  
D262/D302

26.2.120  
AUTHORS: Shnee, Ya. I. and Garkusha, A. V.

TITLE: The effect of the vortex method on the magnitude of output losses

SOURCE: Khar'kov. Politekhnicheskiy institut. Trudy. v. 29, no. 2, 1960. Parovyye i gazovyye turbiny, 89-101

TEXT: Nine variants as shown in Table 1 are calculated. ( $e$  = velocity indexes: 1 and 2 refer to nozzle exit and working blade exit respectively, and  $u$  and  $z$  to radial and axial directions respectively. The results are presented in form of graphs, showing changes

of the  $\frac{C_2^2}{C_{1i}^2}$  ratio ( $i$  = internal radius) and losses  $\bar{\Delta}h_{e_2}$  along the blade, and are analyzed. It is concluded that the losses calculated at the mean diameter represent with sufficient accuracy the losses for any of the above-mentioned variants. It is concluded

Card 1/2

32016  
S/587/60/029/002/003/008  
D262/D302

The effect of the vortex ...

that for every set of values of the parameters there is a separate vortex method which guarantees minimum losses. There are 6 figures and 2 tables.

$f_{\text{var}}$	№ варианта	Метод выполнения направляющего аппарата (2)	Метод выполнения рабочего аппарата (3)
1		$z_1 = \text{const}$	$c_{2u} = 0$
2		$c_{1u} r = \text{const}$	$c_{2u} = 0$
3		$\rho_1 c_{1z} = \text{const}$	$c_{2u} = 0$
4		$z_1 = \text{const}$	$\rho_1 c_{1z} = \rho_2 c_{2z}$
5		$c_{1u} r = \text{const}$	$\rho_1 c_{1z} = \rho_2 c_{2z}$
6		$\rho_1 c_{1z} = \text{const}$	$\rho_1 c_{1z} = \rho_2 c_{2z}$
7		$\alpha_1 = \text{const}$	$\beta_2 = \text{const}$
8		$c_{1u} r = \text{const}$	$\beta_2 = \text{const}$
9		$\rho_1 c_{1z} = \text{const}$	$\beta_2 = \text{const}$

Table 1 

1 -Variation number; 2 - method of execution of guiding apparatus;  
 3 - method of execution of working apparatus

Card 2/2

KOTLYAR, Iosif Veniaminovich; SHNEE, Ya.I., prof., doktor tekhn.nauk, red.;  
PANSHIN, B.M., inzh., retsenzont; ONISHCHENKO, N.P., red.;  
GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Variable operation of gas turbine systems] Peremennyi rezhim  
raboty gazoturbinnikh ustavok. Pod red. I.A.I.Shnee. Moskva, Gos.  
izd-vo mashinostroit.lit-ry, 1961. 226 p. (MIRA 14:4)  
(Gas turbines)

SHNEE, Ya.T.

Technical conference on the development of the theory and practice  
of gas turbine manufacture. Izv. vys. ucheb. zav.; energ. 4 no.1:  
112-115 Ja '61. (MIRA 14:2)  
(Gas turbines—Congresses)

S/114/63/000/004/002/005  
A004/A127

AUTHORS: Shnee, Ya.I., Doctor of Technical Sciences, Federov, M.F.,  
Candidate of Technical Sciences, Garkusha, A.V., Engineer

TITLE: Selecting the closed axial clearance in the bandaged turbine  
stage

PERIODICAL: Energomashinostroyeniye, no. 4, 1963, 18 - 22

TEXT: The authors present a generalized analysis on the various factors to be considered in the closed axial clearance in bandaged turbine stages, based on tests with an experimental air turbine at the KhPI laboratory and on the generalized test results of some other organizations. Nine stages with bandaged runners with different guide blade extensions were tested. A detailed table of the main design and test data of the ХПИ (KhPI), БИТМ (BITM) and ЦКТИ (TsKTI) turbine stages is given. The authors present recommendations on the optimum clearance and state that, based on investigations carried out, it can be said that for stages with a small relative extension of the guide blades it is expedient, from the efficiency of the stages viewpoint, to choose minimum closed clearances. There are 5 figs, 1 table.

Card 1/1

ACC NUM: A9000154981

(N)

SOURCE CODE: UR/0096/66/000/009/0071/0074

AUTHOR: Shnec, Ya. I. (Doctor of technical sciences; Professor); Ponomarev, V. N. (Engineer; Dissertant); Garkusha, A. V. (Candidate of technical sciences)

ORG: Kharkov Polytechnical Institute im. V. I. Lenin (Kharkovskiy politekhnicheskiy institut)

TITLE: On raising the efficiency of the after stages of turbines

SOURCE: Teploenergetika, no. 9, 1966, 71-74

TOPIC TAGS: turbine, gas turbine, turbine nozzle, turbine nozzle assembly, nozzle assembly, conic nozzle, ~~assembly~~, turbine stage

ABSTRACT: An investigation of the conical stages of a turbine, including stages with a nozzle assembly of new design, shaped according to the conical surfaces is described. On the basis of the experimental results, the following conclusions were made: a) the flow stream in the nozzle assembly of the conical stage sharply differs from that in the cylindrical stage. b) As a result of sharp difference of the really streamlined sections in the peripheral zone of the nozzle assembly geometry from the geometry of reference sections designed in conformance to the coaxial cylinder surface, the flow in such stages is converging-diffusing, and in separate zones it is diffusing, which causes increased losses in the nozzle assembly. c) the reprofiling of the nozzle assembly in accordance with the conical surfaces approxi-

Card 1/2

UDC: 621.165.003.1.001.5

ACC NR: AP6029862

mately replacing the flow surface, sharply decreases the energy losses in nozzle assembly, some what decreases the losses in the rotor, and significantly increases the efficiency of the whole stage. d) The proposed method of increasing the efficiency by reprofiling the nozzle assembly in accordance with flow surface is useful for stages with sudden opening of the flow area and any form of peripherally limiting surface. Orig. art. has: 6 figures and 2 formulas.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

ACC NR: AT7003561

(N)

SOURCE CODE: UR/3240/66/000/001/0045/0053

AUTHORS: Grebnev, V. K.; Levina, M. Ye.; Shnee, Ya. I.

ORG: Kharkov Polytechnic Institute (Khar'khovskiy politekhnicheskiy institut)

TITLE: A study of stages with  $D/l = 5$  with a distinct radial gradient of reactivity

SOURCE: Kharkov. Politekhnicheskiy institut. Energeticheskoye mashinostroyeniye, no. 1, 1966. Teploobmen i gazodinamika (Heat transfer and gas dynamics), 45-53

TOPIC TAGS: turbojet engine, ~~jet engine~~, ~~turbine~~, ~~turbojet~~, ~~turbine~~, ~~turbine blade~~, gas turbine, turbine stage, ~~turbine blade~~

ABSTRACT: The problem of what radial gradient of reactivity is optimal for a given range of  $D/l$  in a turbine stage is solved. Variation in the law of distribution of stage reactivity along the height of the blade is due to variation of the kinematic relationships in individual blade sections, and thus to variation of the sum of hydraulic losses (relative losses in jets and in blades ( $t_c + t_r$ )). In this study,  $D/l$  was varied between 2.5 and 40 by changing the values of other controllable parameters. Fifteen stage variants were tested, and the performance characteristics of each combination are plotted as a function of the intervane distance  $L$ . The authors conclude that: 1) the intervane distance has a pronounced effect upon the radial gradient of reactivity, especially for stages exhibiting a large curvature of meridional streamlines with a small intervane distance; 2) the radial gradient of

Card 1/2

ACC NR: AT7003561

reactivity is subject to the law of torsion of a jet lattice, for a small intervane distance; 3) the law of clogging a flow section by the body of a blade plays an important role in the curvature of meridional streamlines; 4) the radial difference of reactivity decreases with decreasing width of the jet lattice; 5) the torsion law of the working lattice also affects the curvature of meridional streamlines within the intervane gap. Orig. art. has: 6 figures and 3 tables.

SUB CODE: 210/SUBM DATE: none/ ORIG REF: 005

Card 2/2

ACC NR: AT6028740

(N)

SOURCE CODE: UR/3116/66/269/000/0120/0126

AUTHOR: Shneer, V. S.

ORG: none

TITLE: Certain particulars concerning the performance of geomagnetic current meters in the upper latitudes

SOURCE: Leningrad. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut. Trudy, v. 269, 1966. Okeanograficheskiye i gidrometeorologicheskiye issledovaniya Ark-ticheskikh morey (Oceanographic and hydrometeorological studies of Arctic Seas), 120-126

TOPIC TAGS: geophysic instrument, magnetic field interference, telluric current

ABSTRACT: Magnetic storms, particularly those occurring in the upper latitudes, affect the performance of electromagnetic instruments for measuring currents to such an extent that there is some doubt whether they are of any use. The increased interference is due to the fact that many Arctic Seas are located in the ring-like arc of maximal magnetic activity and intense of northern lights. Furthermore, the seas are shallow and thus the instrument operates fairly close to the telluric currents pulsating in rocks under those seas. For example, the East Siberian and the Chuckchee Seas are barely 50 m deep. Nowhere on the continental shelf does the depth exceed 200 m. Never-

Card 1/2

UDC: 551.46.085

ACC NR: AT6028740

theless, the instrument can and should be used to an advantage if certain precautions are taken and the intensity and the time of magnetic disturbances is known precisely. The pulses from natural magnetic disturbances are usually higher than the signals of the current meter by an order of one or two. To obtain the necessary corrections, a magnetic varicometer should be stationed centrally in the area under investigation and outfitted for the automatic recording of both the pulses and the time. Orig. art. has: 3 figures.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 005

Card 2/2

SHEIDER, L.

AGRICULTURE

Periodical: SÖTSIALISTLIK PÖLUMAJANDUS Vol. 14, no. 1, Jan. 1959

SHEIDER, L. Some cattle strains of the Estonian Red Hard and their importance in stock-breeding. p. 10

Monthly List of East European Acquisitions ( EAI) LC, Vol. 3, No. 5,  
May 1959, Unclass.

SHNEK, M.

Laudable initiative. Zdrav. Bei. 7 no. 6:70 Je '61. (MIRKA 15:2)  
(MEDICINE, RURAL)

SHRELI, K. N.

Stock and Stock Breeding - Congresses

First conference of livestock breeders and veterinarians of the Moscow Veterinary Academy. Konevodstvo no. 5, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED.

Shnel', K. N.

Shnel', K. N. "Lateral deformation of the carpal joint in pedigreed (pure-blooded supreme and racing) horses and its effect on productivity and work capacity." Moscow Veterinary Academy, Min Higher Education USSR. Chair of Horse Raising. Moscow, 1956. (Dissertation for the Degree of Candidate in Veterinary Science)

So: Knizhnaya letopis', No. 27, 1956. Moscow. Pages 94-109; lll.

Q  
XXXX/Farm Animals. Horses.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 92518.

Author : Shnely K.N.

Inst : Moscow Veterinary Academy.

Title : Lateral Deformation of the Carpal Joints in Thoroughbred Horses (Saddle Horses and Trotters) and its Effect on Productivity and Working Capacity.

Orig Pub: Tr. Mosk. vet. skol., 1957, 19, No 1, 3-17.

Abstract: Deformation of the carpal joints is often found in horses of the Orlov trotter, Russian trotter and thoroughbred saddle breeds of horses. Lateral deformation of the carpus is often accompanied by defects in the extremities: clubfoot (talipes) and spavin. In Orlov trotters 47.7% of cases of clubfoot and 7.2% of spavin were found. In Russian

Card : 1/2

USSR/Farm Animals. Horses.

Q

Ms Jour: Ref Zhur-Biol., No 20, 1956, 92518.

trotters: there was 53.7% clubfoot, spavin 17%. In thoroughbred saddlehorses the incidence was as follows: clubfoot 78.0%, spavin 2.2%, clubfoot and spavin in the same horse 7.1%. Lateral deformation of the carpus decreased the productivity and working capacity, breeding qualities, and also contributed to traumatic diseases of the extremities.

Card : 2/2

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MUSATOV, T.P. inzh.; SHCHUKIN, B.D.; FIKSMAN, S.I. (Odessa)  
GERSHKOVICH, S.F.; SHNELL', R.V.; DODIN, Ya.I.; ZEYLIDSON,  
Ye.D.

Problem of automation and remote control in industrial sub-  
stations. Prom.energ. 12 no.8:1-7 Ag '57. (MIRA 10:10)

1. Stalinskiy setevoy rayon Donbassenergo (for Musatov).
2. Gidroproyekt, g. Kuybyshev (for Shchukin). 3. Novo-Kemerovskiy  
khimkombinat (for Gershkovich). 4. Novosibirskoye otdeleniye  
Gosudarstvennogo proyektnogo instituta Elektroprojekt (for Shnell').  
5. Leninogorskij polimetallicheskij kombinat (for Dodin).  
6. Tekhnicheskoye upravleniye Ministerstva elektrostantsiy (for  
Zeylidzon).

(Electric power) (Automatic control)

SHNELL', R.V., inzh.

Prevention of ice crust formation on power lines using a  
short-circuit current flow method. Elek. sta. 36 no.12:  
(MIRA 18:12)  
79-80 D '65.

SHNELLE, Ye.S., inzh.

Experience in electric heating of massive concrete blocks at  
the building site of hydroelectric power stations under severe  
winter conditions. Izv.VNIIG 51:209-223 '54. (MIRA 12:5)  
(Hydroelectric power stations)  
(Concrete construction--Cold weather conditions)

SHNEPERMAN, L.B.

Semigroups of endomorphisms of quasi-ordered sets. Uch.zap.  
Ped.inst.Gerts, 238:21-37 '62. (MIRA 16:4)  
(Groups, Theory of) (Aggregates)